

AMENDMENTS TO THE CLAIMS

1-63. (Canceled)

64. (Original) An analog memory device capable of being set and reset to a resistance value over a continuous range of resistance values which is a measure of a voltage applied to it over a corresponding range of voltage values, said device comprising:

a substrate having a first electrode formed thereover;

a dielectric layer received over the first electrode;

an opening having sidewalls extending through the dielectric layer to the first electrode, the sidewall having at least one surface striation in a portion thereof;

a material exhibiting said range of resistance values received within the opening in electrical connection with the first electrode, said material having a portion received on the surface striation; and

a second electrode in electrical connection with the voltage or current controlled resistance settable semiconductive material received within the opening.

65. (Original) The device of claim 64 wherein the at least one sidewall striation extends in a substantially straight line.

66. (Original) The device of claim 64 wherein the at least one sidewall striation extends from proximate the first electrode to proximate the second electrode.

67. (Original) The device of claim 64 wherein the at least one sidewall striation extends in a substantially straight line from proximate the first electrode to proximate the second electrode.

68. (Original) The device of claim 64 wherein the at least one sidewall striation extends in a substantially straight line of least possible distance from proximate the first electrode to proximate the second electrode.

69. (Original) A programmable memory cell comprising a body formed of a voltage or current controlled resistance setable material, and at least two spaced electrodes on the body, the body comprising a surface extending from one of the electrodes to the other of the electrodes, the surface comprising at least one surface striation extending from proximate the one electrode to proximate the other electrode at least when the body of said material is in a highest of selected resistance setable states.

70. (Original) The cell of claim 69 wherein the voltage or current controlled resistance setable material comprises semiconductive material.

71. (Original) The cell of claim 69 wherein the voltage or current controlled resistance setable material comprises metal ion-containing semiconductive material.

72. (Original) The cell of claim 69 wherein the voltage or current controlled resistance setable material comprises metal ion-containing dielectric material.

73. (Original) The cell of claim 69 wherein the at least one sidewall striation extends in a substantially straight line.

74. (Original) The cell of claim 69 wherein the at least one sidewall striation extends in a substantially straight line of least possible distance from proximate the one electrode to proximate the other electrode.

75. (Original) A non-volatile resistance variable device comprising a body formed of a voltage or current controlled resistance setable material, and at least two spaced electrodes on the body, the body comprising a surface extending from one of the electrodes to the other of the electrodes, the surface comprising at least one surface

striation extending from proximate the one electrode to proximate the other electrode at least when the body of said material is in a highest of selected setable states.

76. (Original) The cell of claim 75 wherein the voltage or current controlled resistance setable material comprises semiconductive material.

77. (Original) The cell of claim 75 wherein the voltage or current controlled resistance setable material comprises metal ion-containing semiconductive material.

78. (Original) The cell of claim 75 wherein the voltage or current controlled resistance setable material comprises metal ion-containing dielectric material.

79. (Original) The cell of claim 75 wherein the at least one sidewall striation extends in a substantially straight line.

80. (Original) The cell of claim 75 wherein the at least one sidewall striation extends in a substantially straight line of least possible distance from proximate the one electrode to proximate the other electrode.